Money Shot

Game Design Document

THQ Digital Studios Phoenix

Confidential

v.12

3/28   v.12- graphic novel cut scene details, mission target details, Optional Goals details, bullet updates
3/21   v.11- city mission B detail updates
3/15   v.10- added details for Edge of City Level Boundary,
3/9   v.9- added level table to track level names and progression position.
3/4   v.8- updated multiplier and point score systems, city mission details for A and B
3/3   v.7- updated Pickups and Near-Miss and audio
2/25   v.6- updated Bullet Types List, added Hit Locations System
2/18   v.5- added Bullet Types List, Replay System Design
2/10   v.4- added Stat Tracking List
2/8   v.3- added "save file data" section

Play as the bullet in this tightly focused arcade game that will incentivize pre-orders and new purchases of Saints Row 3. Hone your bullet control skills and perform the ultimate assassination as the notorious sniper Cypher.

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1   Platform and General Information

Platforms
This product is targeting console digital distribution:
- XBLA on Xbox 360
- PSN on PlayStation 3

Price
$5.00 - $10.00

Rating
ESRB: M
PEGI: 18+

Target Audience
Demographics: Males 18+
Psychographics: People who have purchased Saint's Row, anyone who enjoys firearm inspired action such as Wanted, Top Shot or the Sniper class of any action game.

Game Summary
An action/puzzle game where the objective is to successfully control the bullet through interesting, living environments to your final target – racking up points and achievements along the way.
The game will consist of a set of training modes that will unlock sniper missions, with fiction serving as the overarching progression mechanism. Each mission will be unlocked by achieving a stated requirement of currency from the training missions. Each mission will consist of three parts: firing the bullet, navigating the environment, and finally hitting the target.
Each mission is a puzzle – the player is not expected to navigate the mission successfully on their first attempt. Each mission will contain between 70-100 seconds of end to end flight time. The player will achieve different ranks of completion for each mission based on how many points they score during their navigation of the environment as well as their ability to hit the target successfully.

2   Setting and Fiction

This last Friday it was determined that we should capitalize in using this games characters and assassination in helping to tell the story of why the Saints left Stillwater.

Details are still TBD based on conversations between Ara S., Scott B., Scott R., and Paul D.

Overall Story ideas/ elements
Here are some ideas about possible forms of the high-level narrative in MoneyShot. These can be freely used or discarded.

- The city missions are considered the dramatic peaks of the narrative. The first city mission takes place halfway through the game, and the second one is at the end of the game. We will call the first half of the game "String 1" and the second half "String 2".

- Intro cut scene (maybe takes place even before title screen) that depicts the game's final target ("boss 2") on the phone, camera perhaps to his back. He's making joking comments about how he's untouchable and feels safe in this ultra secure location he's in. Just as the camera cuts to black you hear the sound of a bullet breaking glass. This sequence foreshadows the final scene in the game and mirrors the actual gameplay sequence at the end of the game, where you steer the bullet into this guy's office at hit him with it. The player won't realize the significance of the scene until the very moment where they steer the bullet into the guy's office at the very end.

- Maybe the events of this game explain or otherwise connect to events between SR2 and SR3.

Narrative idea 1:

- Sniper character backstory:

- loner/ socially awkward/ borderline Asberger personality type.

- forced into some kind of hi tech training/experimental program against her will at a young age.

- has no knowledge of events outside her immediate sheltered world, only knows what the few individuals in her immediate life have chosen to reveal to her.

- secretly harbors immense resentment for some scientist or executive type character who she believes forced her into this life as a guinea pig.

String 1: (building off the backstory) (4 sniper range missions + 1 "midpoint" city mission)

- she secretly plots revenge on the person ("B") who she feels is responsible for her life.

- practices techniques in the sniper range that will directly relate to the events that take place in the first city mission, in terms of the kinds of obstacles she will need to make the bullet traverse through or around. Narrative exposition building up to the city mission need not be chronologically tied to the sequence of the 4 sniper missions.

- gains information about where "B" will be at a certain point in time, hopefully there is some nice conceit about how she manages to leave the labs that she is normally confined to.

- First city mission is the execution of her revenge on "B," utilizing her skills and bullets developed at the lab/sniper range.

- The catalyst for String 2 is that although her mission was only personal, by killing "B" she has unintentionally set off a much larger crisis. By some turn of events, she finds herself forced into some situation where she must now assassinate somebody really, really important in order to save her own life (and possibly net some other good outcome)

String 2: (4 more sniper range missions + 1 final city mission)

- because the new target is so high-profile, she knows that her current equipment and skills must be developed further in order to complete the new mission.

- she spends 4 sniper range missions developing new bullet technology as well as her skill to prepare for the final city mission. Possibly in parallel, cut scenes can show the player what is going on in the 'real world,' gradually building tension until the final shot.

- final city mission is where she fires the bullet to carry out the final shot.

Other random ideas:

- 1st target/boss is somebody escaping on a motorcycle (nice dynamic for gameplay)

2.1   Graphic Novel Cut Scenes

It is the intent to tell the story through graphic novel cut scenes.

The minimum number of cut scenes required is as follows, with their rough *relative* lengths:

VERSION 2 (shorter version)===

12 "screens" total. We can elongate each screen by making more voiceover per screen when necessary. Screens can be traded between cut scenes as needed for narrative, as long as the total is 12.

Cut Scene 1: Opening (Anna is Killed) (immediately after Prologue City Mission "0" and before 1st sniper range mission); 6 screens.
Cut Scene 2: City 1 Intro (Dex) (before City Mission 1); 1 screen.
Cut Scene 3: City 2 Intro ("Biker"??) (before City Mission 2); 1 screen.
Cut Scene 4: Ending (after successfully completing City Mission 2); 4 screens.

Cut Scene 1: Opening (Anna is Killed) ; 6 screens.
- starts immediately after the assassination of Anna is completed. Player plays Anna's assassination mission (Prologue City Mission) first without any explanation, then gets the narrative after completion.
- introduce Cypher.
- what does she do, why she is feared, how does she get assignments.
- introduce Ultor Lab and why/what she does in the sniper range missions.
- Cypher recognizes there is something inadequate about her equipment or skill and must develop her technology or herself in order to be successful with future or upcoming jobs. (or, some better conceit to explain the sniper range missions between assassination missions.)
- Introduce the secret Ultor Sniper Range, where she develops her skill and technology. She spends a lot of time here.
- FYI- Player will have to complete 4 sniper range missions in preparation (increasingly harder and while unlocking / "developing" increasingly advanced bullets) before moving on to next assassination target.

Cut Scene 2: City 1 Intro (Dex) ; 1 screen.
- Before this, Cypher has completed sniper range missions 1 through 4.
- If we can only spend 1 visual frame here, it can be a single frame of Dex, maybe like an action shot of him in his current role in the narrative (not a mug shot style of depiction, because that will already appear in the game on a UI screen), with voiceover that illustrates the following:
- introduce target Dex.
- reference to Dex's SR history, why he must be assassinated.
- Dex assassination mission starts immediately afterward.

Cut Scene 3: City 2 Intro (Final Target, "Biker??") ; 1 screen.
- Before this, Cypher has completed sniper range missions 5 through 8.

- If we can only spend 1 visual frame here, it can be a single frame of the "Biker??" target similar to the structure in Cut Scene 2.
- The "Biker??" character is up to the writer to define, but in the game he/she will be riding the hoverbike, possibly to escape the risk of getting shot, there may be a special time constraint about why Cypher needs to take this person out right now, perhaps the target gets wind of this and thinks he/she is safe by escaping on the hoverbike. Possibly its a son of a powerful syndicate leader, or some other character who can satisfy/facilitate the ending of Money Shot (see Ending below). (these are just suggestions and not requirements)
- introduce target "Biker?? "
- why target must be assassinated.
- why target is going to be tricky to track down and hit (he is riding the bike in the level).
- maybe make reference to how sniper range missions up until this point have adequately prepared Cypher for this job (again a suggestion, not a requirement).
- FYI- this is the last assassination mission in the game.

Cut Scene 4: Ending ; 4 screens.
- Starts immediately after the completion of City Mission 2.
- some manner of resolution, what did all of this stuff that you did accomplish.
- possibly some setup in anticipation for SR3.
- ideally, this assassination will help tell the story of the the Saints' exodus from SR2's city to SR3's city.
- ideally some reference to one or more of the unlocks you get in SR3 (hover bike, Cypher costume) related to this accomplishment, but only do it if it can be weaved in elegantly.
- some reference that she goes back to train in the sniper range to encourage player to re-play old missions (may be several things they did not yet unlock, may be new sniper range missions unlocked after this depending).

VERSION1 (long version)===

Cut Scene 1: Opening (Anna) (before Prologue City Mission) (med. to longer)

Cut Scene 2: Sniper Range Intro (before 1st sniper range mission) (shorter)

Cut Scene 3: City 1 Intro (Dex) (before City Mission 1) (med.)

Cut Scene 4: City 2 Intro ("Biker"??) (before City Mission 2) (med.)

Cut Scene 5: Ending (after successfully completing City Mission 2) (med. to longer)

Structure/Requirements (requirements are not in any particular chronological order)

Cut Scene 1: Opening (Anna)

- introduce Cypher.

- what does she do, why she is feared, how does she get assignments.

- introduce Ultor Lab and why/what she does in the sniper range missions.

- takes place immediately before the Prologue city mission- set up the mission target Anna, why she must be assasinated.

Cut Scene 2: Sniper Range Intro

- Cypher recognizes there is something inadequate about her equipment and must develop her technology in order to be successful with future or upcoming jobs. Maybe this was foreshadowed in Cut Scene 1.

- Introduce the secret Ultor Sniper Range, where she develops her skill and technology. She spends a lot of time here.

- FYI- Player will have to complete 4 sniper range missions in preparation (increasingly harder and while unlocking / "developing" increasingly advanced bullets) before moving on to next assassination target.

Cut Scene 3: City 1 Intro (Dex)

- introduce target Dex.

- reference to Dex's SR history, why he must be assassinated.

- make reference to how sniper range missions up until this point have adequately prepared Cypher for this job.

- FYI - after this hit is complete, player will have to complete 4 more sniper range missions in preparation (increasingly even harder and while unlocking increasingly even more advanced bullets) before moving on to the last assassination target.

Cut Scene 4: City 2 Intro (Final Target, "Biker"??)

- introduce target Biker?? Actual character is not defined yet, but will be riding the hoverbike, possibly to escape the risk of getting shot, there may be a special time constraint about why Cypher needs to take this person out right now, perhaps the target gets wind of this and thinks he/she is safe by escaping on the hoverbike. Possibly its a son of a powerful syndicate leader, or some other character who can satisfy/facilitate the ending of Money Shot (see Ending below).

- why target must be assassinated.

- why target is going to be tricky to track down and hit (he is riding the bike in the level).

- maybe make reference to how sniper range missions up until this point have adequately prepared Cypher for this job (hopefully in a way that is completely different from in Cut Scene 2).

- FYI- each of the respective introductions/setups to the assassination targets should feel sufficiently distinct in a way so that the structure does not feel repetitive to the player)

Cut Scene 5: Ending

- some manner of resolution, what did all of this stuff that you did accomplish.

- possibly some setup in anticipation for SR3.

- ideally, this assassination will help tell the story of the the Saints' exodus from SR2's city to SR3's city.

- possibly some elegant reference of the unlocks you get in SR3 related to this accomplishment.

- some reference that she goes back to train in the sniper range to encourage player to re-play old missions (may be several things they did not yet unlock, may be new sniper range missions unlocked after this depending).

3   Controller Configuration

In-Game

Xbox 360	PS 3	Description
A	**X**	**Fire Bullet**
B	Circle	--
X	**Square**	**Invert Vertical Steering Controls**
Y	Triangle	--
RT	**R2**	**Speed Up Time**
LT	**L2**	**Slow Down Time**
RB	R1	--
LB	L1	--
LS	**LS**	**Steer Bullet**
LSB	L3	--
RS	RS	--
RSB	R3	--
Left	Left	--
Right	Right	--
Up	Up	--
Down	Down	--
Start	**Start**	**Pause Game**
Back	Back	--

Menus

Xbox 360	PS 3	Description
A	**X**	**Select**
B	**Circle**	**Cancel / Back**
X	Square	--
Y	Triangle	--
RT	R2	--
LT	L2	--
RB	R1	--
LB	L1	--
LS	**LS**	**Move Cursor**
LSB	L3	--
RS	RS	--
RSB	R3	--
Left	**Left**	**Move Left**
Right	**Right**	**Move Right**
Up	**Up**	**Move Up**
Down	**Down**	**Move Down**
Start	Start	--
Back	Back	-

4   Gameplay Mechanics and Systems

4.1   Basic Bullet Control Mechanics

All bullet steering movement is controlled by the left thumbstick. The player is free to steer in any direction they like at any time. Holding either the right trigger or the left trigger will speed up or slow down time respectively.

When time is sped up, play is more difficult because everything happens at a faster pace, but the player earns significantly more points in this state. Similarly, when time is sped down play is much easier, but the player will earn far fewer points. It's up to the player to decide from second to second the speed they are most comfortable with, and the point tradeoff serves to encourage the player to attempt ever-faster speeds upon subsequent plays.

4.2   Influence System

"Influence" is the name of the player's special resource, displayed as a meter at the top of the screen.

Your power to slow down time is limited! Normally, you can't just fly slowly whenever you want. While time is slowed down, your Influence Meter will continuously decrease. Once you are out of Influence, the bullet will forcibly return to its normal speed, and your ability to slow down time will be lost until more Influence is collected.

Fortunately, there are multiple ways to collect Influence. Generally, flying in the "sped up" state will cause your Influence Meter to fill. Also, there are Pickups which will instantly award the player with a certain amount of Influence upon collection.

In this way, the player must be careful where and when to slow down time in order to achieve the highest performance possible in a level.

4.3   Main Target Crosshair

In order to more clearly communicate the main target of any level, we may implement a special target crosshair that will explicitly point out the main target as you approach it. The details and status of this feature is TBD, and will only be implemented if it is found that players need an additional device to point out the main target to them during gameplay.

4.4   Edge of City Level Boundary

Because of the intrinsic nature of realistic urban landscapes, it may not be reasonable or believeable to fully contain the player within City levels with physical obstructions. In order to compensate for this, we intend to use a special "you've left the boundary of the level" volumes which will "kill" the player's bullet in some stylish manner.

Use of these volumes must be undertaken with care, as this device should *not* under any circumstances compensate for poor city level design. We plan to only place such volumes in locations where it is already obvious to the player they are either in or heading into a space that is "out of bounds/ not allowed/ not part of the level."

The parts of a city level that are in fact *in bounds* must be communicated to the player by skillful spatial design. Namely, in-bounds areas must have a high affordance of travel and draw the player's interest, and out-of-bounds areas must have a very low affordance of travel and cannot have any elements that draw the player's interest to them. In other words, it should already be obvious by the visual design of the space where you may and may not go. Our "edge of city boundary" should only be needed to stop those who choose to play with deliberate intent, regardless of visual cues, to either exploit the boundary of permissible space or otherwise break the game.

Out-Of-Level Boundary Action Details
Assuming that we define the "out of level" area with some collision volume (when the bullet enters the volume it means the player is "outside the level"), once the player crosses the threshold, the following things will happen:

1. Visual effects will fade in and/or gradually increase intensity over a period called the "out of level timer", say we start at about ~3-5 seconds. Maybe this includes buffeting (shaking), fade to red, etc. The "out of level timer" will be a global interval and will define how long the player is allowed fly while "out of level."
As soon as the "out of level timer" expires, the following things happen:
    - Visual effects will be at their maximum intensity by this moment.
    - Player control is immediately disabled.
    - A fade out to the mission result screen begins (fade out time is about 0.5-1 sec.).
    - A final bullet animation may be played to coincide with the fade out if desired.
    - If the bullet hits a wall during the fadeout time, the bullet/camera should still be stopped as usual, and the fadeout should be allowed to complete (this fadeout and the fadeout upon collision in normal play should be the same duration).
    - After fadeout is complete, player is taken to the Mission Results screen just as if they hit a wall.

2. When the player crosses the threshold into the "out of level" volume, their maneuverability will be immediately reduced. The purpose of this is to make the player "feel" the edge of the invisible volume (very important, so they can get out of it quickly once they recognize this state), and also to limit their lateral movement when inside the volume. We can start out by dynamically setting "Turn Rate" and "Max Turn Angle" to fixed (low) values regardless of bullet characteristics/speed and see how that feels.

3. If the player is able to exit the volume before the "out of level timer" expires (by going back into the legal level play area), the following things happen:
    - Their original maneuverability is immediately restored.
    - The "out of level" effects quickly go away (say over a period of 0.25 or 0.5 sec).
    - The "out of level timer" is canceled.

4. We assume that the "out of level" volumes will always be built large enough, and that the "out of level timer" is always short enough, so that the player can never cross to the opposite side of the "out of

level" volume and reach a state where they are really out of the level and also outside the "out of level" volume.

5. We might display an "out of bounds" message while you are in the volume, if necessary.

4.5   Object Types

There are three basic types of objects the player will encounter. In this section, "objects" basically means anything that the bullet can interact with.

Unbreakable Solid Object
This type of object will stop the bullet in its tracks. Any unbreakable solid object that is not explicitly a *target* will result in game over. These objects must meet any average player's expectations to be bullet-stopping solid objects just by visual inspection. Examples include people, walls, and vehicle bodies.

If the collision with an unbreakable solid object is "glancing" (as opposed to head-on), the bullet will react by ricocheting instead of stopping.

Breakable Solid Object
This type of object will not stop the bullet in its tracks, but will break in some manner when struck by the bullet. After impact, the bullet will keep going. There may be a camera cut to emphasize the impact moment, and in general breaking an object will net the player some points. Just like unbreakable objects, breakable solid objects must meet any average player's expectation that a bullet should go through it just by visual inspection. Examples include windows of all kinds, food, birds, and bottles.

Nonsolid Object
Nonsolid objects behave just like breakable solid objects, in that the bullet can go right through them unaffected. However, these objects are unique since they don't even break upon impact, because they are either so incredibly insubstantial or they are completely virtual. Examples include Pickups (icon rings) and sheets of falling water.

4.6   Pickups

Pickups are represented by special "icon rings" that appear in various locations in levels. The effect of the pickup happens when the bullet passes through the interior of the pickup's icon ring. Pickup effects are always instantaneous and only affect action within a given mission.

All pickup types have a similar basic appearance, shape and size. The effect of the pickup is visually communicated by variations on the basic pickup style.

Pickups never stop the bullet, even if the player passes through the graphical boundary of the pickup, because they are *nonsolid objects*.

Pickup List

Influence Up	Adds a certain amount of influence to your bullet. If your Influence meter is already full, it awards a base point value that is subject to the multiplier (e.g. 1000 pts.)
Time Up	Adds a certain amount of seconds to the clock, for time limit missions.
Score Up, Normal	Adds a certain amount of score (e.g. 1,000 points). This point value is subject to the multiplier.
Score Up, Small	Adds a certain amount of score (e.g. 5,000 points). Twice as small as the normal pickup size, but worth more points. This point value is subject to the multiplier. There may be a third size later, but only if necessary.

4.7   Point Score System

There are several subsystems that comprise the point system, which governs the numerical score the player will obtain while playing any level:

Flying Speed Point Accrual and Multiplier
Similar to games like *OutRun*, the player will earn points just for flying without incident. The rate of points earned will be displayed as a real time increment of your score, as well as in the form of a multiplier.

Score is accrued as a function of bullet speed, and will vary from bullet to bullet according to each bullet's control characteristics. Typical values are:

fly @ min. speed:	accrue at 10 pts. per second (0.1x multiplier in effect)
fly @ normal speed:	accrue at 100 pts. per second (1.0x multiplier in effect)
fly @ max speed:	accrue at 1,000 pts. per second (10.0x multiplier in effect)

This accomplishes two important things. First, it makes the player's score a true measure of how far in the mission the player was able to guide the bullet. In this way, even the least capable players can enjoy setting a score and attempting to improve on it. Second, it encourages the player to increase the difficulty of any level at their own pace by flying faster, while earning more points at the same time.

Special Score Acceleration - Multiplier Increase
This device is intended to compensate the player for the fact that the longer the player continuously remains in the max speed state, the more difficult it is to remain at max speed without incident. Also, we want to reward players who can stay in the max speed state more than players who need to return back to normal speed for a moment now and again to stay in control.

With this device, the base max speed multiplier (10.0x) will linearly increase for every continuous unit of time the player remains at max speed, without limit. If the player ever drops under max speed for any reason, the max speed multiplier will return to its base value (10.0x).

The rate of multiplier increase will be 1.0 per second, with the multiplier visibly increasing in increments of 0.1x per tenth of a second.

In this way, if the player remains at max speed for 5 seconds and then lets go of the trigger, the multiplier will read 15.0x before dropping back down to normal speed (1.0x). If at that point the player presses the trigger to return to max speed, the multiplier will then jump to 10.0x and will start incrementing upward again.

Destruction Points

The player will earn points for steering the bullet through breakable objects.
This value will be scaled by the multiplier as well, so that hitting destructible objects at a higher rate of speed earns more points.

Each breakable object will be classified according to its difficulty to hit:

Breakable Object Category	Base Point Value
Easy-Hit Object	500
Medium-Hit Object	1,000
Difficult-Hit Object	2,000

Near-Miss Points

The player will also earn points for steering the bullet close by unbreakable solid objects without actually hitting them. The regular bullet is 0.4 in. in diameter. There are three basic levels of near-miss:

Near-Miss Name	Proximity to Bullet	Base Point Value
Close Call	≤ 8 in.	500
Super Close Call	≤ 4 in.	1,000
Extreme Close Call	≤ 2 in.	2,000

These values will also be scaled by the speed multiplier accordingly.

Flying alongside a wall will not elicit continuous 'near-miss' points. Because of the ricochet action of the bullet, there is no special risk to flying parallel to obstacles of any kind - the only risk is when you approach a surface head-on. For this reason, "Near-Miss" only applies to surfaces that you approach head-on enough where collision would result in game over. (that is, surfaces perpendicular to the bullet's path)

Near-Miss does not occur on Mission Targets, because you must hit them to complete the mission. Near-Miss also does not occur on breakable solid objects, because there is a point reward, not a penalty to hitting those. Near-Miss also does not occur on nonsolid objects, for the same reason.

How the Multiplier Relates to Bullets and Other Scoring Situations

Every event that dispenses a score value is subject to the multiplier's current value before being added to the player's score. What's more, the actual multiplier values should be adjustable from bullet to bullet in order to compensate for each bullet's specific control characteristics:

Multiplier Parameters Per Bullet	Unit	Default Value
Min Speed Multiplier	real	0.1x
Normal Speed Multiplier	real	1x
Max Speed Multiplier	real	10x
Max Speed Multiplier Increment Rate	multiplier unit/sec	1

(1x means 100 pts. per second for simple bullet flight point accrual)
(the current multiplier parameters in each bullet should be completely superseded by the above)

Point Generator Summary
This is a list of all events that cause the player to earn points. Some of these items are described elsewhere in this document. Each category of base point value should be globally adjustable.

For all of these, only the total point value after modification of the multiplier is shown if there is a HUD callout upon award.
During the replay montage, point values will be shown too and possibly the multiplier.

Event	Description	Base Point Value	Modified by Multiplier?	HUD Callout upon Award?
Bullet Flight	Fly the bullet.	100 pts. per sec.	Yes	No
Near-Miss!	Get a near-miss.	500	Yes	Yes
Ultra Near-Miss!	Get a closer near-miss.	1,000	Yes	Yes
Insane Near-Miss!	Get the closest near-miss.	2,000	Yes	Yes
Money Shot!	Hit the Main Target.	Varies, defined on a per-mission basis.	Yes	Yes
Goal Completed!	Satisfy an "Optional Goal" for the mission.	Varies, defined on a per-goal basis.	Yes	Yes
Destruction!	Hit a normal breakable object.	500 or 1,000 or 2,000 depending on object size or hit difficulty.	Yes	Yes, <u>maybe</u> only point value
Special Event!	Hit a special breakable object that is connected to a special camera cut event.	8,000	Yes	Yes
Pickup!	Fly through a pickup that dispenses points (point or influence pickup).	1,000 or 5,000 depending on pickup type/size.	Yes	Yes, but only point value or time value
Secret Through!	Fly through a secret unmarked gap.	2,000	Yes	Yes
Influence Bonus	Hit the Main Target with	1,000 pts. per unit of	Yes	Yes

	leftover Influence.	Influence.		
Time Bonus	Hit the Main Target with leftover time.	100 pts. per sec. or leftover time.	Yes	Yes

*Money Shot, Influence Bonus and Time Bonus all appear on-screen the moment you hit the main target, for each that apply.

4.8   Ricochet System

The ricochet system is a way to prevent the player from running into parallel (or close-to-parallel) surfaces without a game-stopping penalty. Additionally, it allows us to keep the bullet away from wall surfaces that the camera may otherwise clip through.

Only collision with unbreakable solid objects may result in a ricochet. What's more, the bullet's trajectory must be close-to-parallel within a certain threshold with the object for a ricochet to occur. If the collision is head-on or otherwise not within the ricochet threshold, the bullet will be stopped instead and a ricochet will not happen.

When a ricochet happens, the bullet will just bounce off of the surface in a predictable way. Bullet steering forces applied by the player are not specially affected by a ricochet.

4.9   ~~Camera Cut System~~

~~When the player hits a Mission Target, or a breakable object, often a camera cut will engage. The purpose of the camera cut is to surprise and reward the player with a visual gag or other interesting consequence of their hit consistent with the Saints Row style sensibility.~~

~~While a camera cut engages, the edges of the screen will letterbox vertically, in order to reinforce to the player that they are in a non-interactive mode at the moment. Camera cuts that do not result in the mission being completed must return control back to the player while satisfying the following requirements:~~

- ~~The duration of the cut must not feel laborious or excessively long to the player.~~
- ~~The bullet must not move at all during the camera cut, so when control is returned to the player, they start from the exact same position that triggered the camera cut.~~
- ~~Other action in the level must be invariant under camera cuts being triggered or not triggered.~~
- ~~The camera transition from the cut and back to gameplay must not be jarring and must be fluid enough so the player is adequately oriented and prepared to get back into the action. The player should never feel like they are sacrificing any performance by way of triggering a camera cut.~~

4.10 Replay System

This Replay System is intended to <u>completely</u> replace the Camera Cut System.

Instead of camera cuts that occur during gameplay, the player is treated to a replay montage before the Mission Results screen, if they are able to hit the main target. (if they do not hit the main target, replay will not occur)

A "camera cut" now means one of the several cuts that make up the replay montage.

We should do this because:

- We won't have to interrupt gameplay at all, which can feel disruptive to the player and can ruin their gameplay rhythm.
- It alleviates some difficult problems that we no longer have to solve, like coordinating time in the world before/during/after camera cuts.
- We will no longer have to carefully pad space between 'camera cut' moments to make sure that the player doesn't encounter an obstacle in their face right after the cut.
- We will no longer have to carefully space out the camera cut moments in the levels, now we can place them anywhere we want and create any number of them, resource permitting.
- It makes the camera cut work completely independent of level design work, which will allow faster development.
- It gives the player an additional reward to look forward to for completing the level.

This new approach also means:

- We can also implement less elaborate camera cuts for things besides "gags": simple object breaks or other actions like flythroughs/near misses, anything that triggers a point reward. These types of camera cuts could possibly be partially/fully procedurally generated if manually creating them is too much work.
- We can also implement camera cuts for tunnel levels if we see fit.

New Form of Camera Cuts

The work that we had planned to do to implement a camera cut will still be largely the same. We will have a camera position/script, and an animated sequence. We now also have the freedom to show the cut starting from before the bullet actually hits the trigger object.

Basic Flow of Events

- Player plays through level, gameplay is never interrupted.
- If the player does not hit the main target, level ends as normal.
- If the player hits the main target, the death animation cut plays as normal, then the camera cut montage (replay) begins:
- The game will select a specific number of cuts to use (say 5 max) based on which cuts generated the most points for you. For example, in a single playthrough, you may hit/pass 10 items that each have an associated camera cut. The game will select the 5 highest point earning cuts, will assemble them in chronological order (the order you encountered them), and will discard the rest.
- For each cut, the game will remember the coordinate at which the bullet struck the object/trigger. Then, the game will use this info to reconstruct the bullet's path during the cut:

- the bullet speed will be timed according to the animation or will always be a fixed speed, as long as it hits the trigger point at the correct moment and as long as we can ensure that the bullet won't appear to clip through animating objects.
- the bullet path will just be a straight line through the recalled coordinate, down the firing axis.
- it is expected that since the bullet is so small and fast, and since the camera is facing an oblique direction, the player will not notice that we are puppeting the bullet instead of doing a bonafide replay.
- in the camera cut itself, we will also display two HUD items:
    - The same point value popup that appeared on the screen when the player actually triggered the event.
    - The Multiplier value at the instant the bullet triggered the event will also be displayed.
- HUD does not appear during the cut other than the two items decribed immediately above.

- The flow of the montage itself goes like this:
- Player hits main target.
- Bullet hitting main target anim plays as normal.
- As the above animation ends, fade to white and start playing BGM.
- Fade from white into 1st selected cut, then hard cut to next cut- play through all 5 selected cuts in chronological order, ending with the main target hit cut and then looping. (including the fade to/from white which is intended to punctuate the beginning/end of the loop)
- Continue to loop until player presses A.
- Anytime player presses A, fade to black, fade out BGM, then go to the mission results screen.

4.11 Hit Location System

This system is a way for the game to determine whether or not the bullet hit a specific location on a model.

We have two applications for the Hit Location System:

1. Hit Locations Used on Main Targets

For the main target of a mission, we may divide the body into three main regions: HEAD, TORSO and LIMBS. A hit anywhere on the body is considered a valid main target hit, but the TORSO will be worth more points than the LIMBS, and the HEAD will be worth much more points than the TORSO. In this way, even if the player has completed the mission they can try again to hit a more valuable part of the target for a much better score.

For any mission, especially the final mission, we may also specify an Optional Goal in the following way: e.g. Hit the main target in the Head. In this way, we can create compound conditional goals. We can possibly attach the SR3 unlock to such a conditional goal, if we want the item unlocking to be more challenging for the player.

2. Hit Locations Used to Mark Special Events & Other Optional Goals

We can also use the Hit Locations method to detect special events which may either be hidden point generating situations or other Optional Goals. For example:

- Fly through a person's legs
- Obtain a Near-Miss on a specific part of the body
- Fly through other gaps of various shapes, where a trigger is not suitable to use to detect the "flythrough."

5 Mission Start and End

All missions begin and end with the following structures:

Mission Start

Every mission has a "briefing" screen that will be displayed while the level loads. This briefing screen displays various pertinent information about the upcoming mission, including a depiction of the main target, and possibly other key elements.

The player must press a button to proceed beyond the briefing screen. Once this happens, the player will view a sequence of the sniper preparing themselves for the mission, and the camera will transition into the starting point of the mission.

At this point, the player is free to press the button to launch the bullet at any time. Once that happens, the player will view a short sequence of the bullet exiting the barrel of the rifle. Control of the bullet will be given to the player once the bullet exits the barrel of the rifle as the animation sequence smoothly transitions to gameplay. HUD elements will only appear on the screen the moment the player has been granted control of the bullet.

Care must be taken in level design to assure there is enough distance between the moment the player gets control of the bullet and the first obstacle they must react to. The moment the player has actual control is considered the actual "starting point" of the mission.

Mission End

Missions can only end by the player running out of time, or by the bullet hitting an *unbreakable solid object*. If this object is not the mission target, then the mission is considered a failure. However, even in failure the player is still recognized for the score they have earned, optional mission objectives they have satisfied, as well as any title they may earn for satisfying a specific performance level (minimum score).

The following information will be displayed to the player at the end of any mission, whether the mission ended in success or failure:

⊕ Player Score
⊕ High Score (or previous high score, if the player earns the current high score)
⊕ Max. Multiplier obtained
⊕ Leftover Influence (only if points are awarded for it)
⊕ Leftover Time (only if points are awarded for it)
⊕ Main Target Hit Status (hit or missed)
⊕ Performance Rank Title
⊕ Optional Mission Objectives satisfied

6   Bullet Types

The player will be able to utilize an array of various bullets throughout the game, each with their own handling characteristics.

Initially, the player only has one bullet. As progress is made and missions are completed, new bullet types are developed and unlocked.

The variation in bullet types is similar to variation in cars in a game like *Gran Turismo.* Some are easy to control, some are more difficult to control. Some fly relatively slowly, others fly more quickly. Some will feel stable, others will require a great degree of finesse to control. Some will have slow turn rates and others will have fast turn rates.

Here's a list of various characteristics that may vary among bullet types. Each category below can be set independently for the bullet's "min. speed," "normal speed," and "max. speed."

- ⊕ Flight Speed
- ⊕ Influence Accrual/ Consumption Rate
- ⊕ Max. amount of Influence
- ⊕ Turn Rate
- ⊕ Max. Turn Angle
- ⊕ Point Multiplier
- ⊕ Bullet Size

6.1   Bullet Types List

This is a list of Bullet names and their specific characteristics. The "min, nor, max" columns indicate the three speeds of the bullet. Absolute extents are 100-1400

Entries with a complete **entity name** are currently implemented in-game.

entity name	actual name	min	nor	max	description
PlayerBulletA	----	500	500	500	**Beginner Bullet Lv.1**. Very slow. Very Stable. Easy to use. Low points. no speed up or slow down. ***FIRST BULLET FOR FIRST TUNNEL LEVEL*** ***MAYBE ALLOW SLOW DOWN ONLY***
PlayerBulletB		300	500	700	**Floaty Bullet Lv.1** (slow). Doesn't steer back to center by itself.
PlayerBulletC		100	750	1400	Gate2 Bullet. Advanced bullet. Highest range of speed possible. Good maneuverability, slightly unstable. **TOTALLY JACKED UP NOW**
PlayerBulletD		250	550	550	**Beginner Bullet Lv. 2**: 550 normal speed, stable, easy to use, low-mid points, NO speed up, slow down only. ***SECOND BULLET FOR 2ND TUNNEL LV.*** ***MAYBE ALLOW SPEED UP TOO***

PlayerBulletE	649	650	651	**Fixed-Speed Bullet Lv.1.** Triggers control your turning ability, instead of speed.
PlayerBulletF	400	1000	1100	very fast bullet, sleek and stable but not very turnable. high normal and max speeds, low multiplier for top speed but relatively high multiplier for normal speed. Very rapid speed changing allowed.
PlayerBulletG	400	500	1100	relatively slow normal and min speeds, very fast max speed. slowdown mostly adds maneuverability and slows you down just a little. symmetrical with F in terms of speed differences and multiplier action.
PlayerBulletH	400	600	800	influence always decreases unless you are going max speed. - normal speed is hard to turn - have to manage slow and fast well, otherwise you get stuck on normal speed which is the worst.
PlayerBulletI	450	700	950	fast turn rate, but small max. turn angle **Lv.2** (<u>fast</u> version) - fast influence accrual and consumption - very stable, very snappy
PlayerBulletJ	200	450	700	fast turn rate, but small max. turn angle **Lv.1** (<u>slow</u> version) - fast influence accrual and consumption - very stable, very snappy
PlayerBulletK	100	550	650	slow turn rate but large max. turn angle **Lv.1**
PlayerBulletL	350	600	800	0 inertia bullet. steering is instantaneously responsive and stops turning right when you stop. super stable. high maneuverability. (but some instability due to fast/nonlinear ramping of turn rate)
Insano Maneuver Bullet				**LV.2** version of PlayerBulletL. ***IN PROGRESS***
				fast turn rate **and** angle, super high maneuverability but super unstable
				heavy bullet (high gravity, have to steer to keep it level)
				high speed bullet, lots of points. Even the slowest speed is pretty fast.
				Average mid-speed bullet.
				something crazy (like initial steer input is super fast but then effect dampens if you hold it)
				Insano Maneuver Bullet

- try changing the rate of speed change (default 0.25, 0.1 is very fast, 0.5 is slow?)
- slow speed transitions

7   Missions, Game Progression

The basic game progression structure consists of two sequences of four Sniper Range Missions that culminate in a single City Mission.

Each sequence of Sniper Range Missions is considered a preparation and development process where the player develops new bullets and hones skills that are necessary to be used for success in the upcoming City Mission.

In order to more tightly couple this relationship between City and Sniper Range, the player will encounter several targets from the City Mission first as Sniper Range Mission targets or obstacles, as virtualized representations of the real objects that will ultimately be encountered.

After the second City Mission is complete and the narrative arc is completed, the player is free to return to any previously completed mission (previously-completed missions are always available at any time) to attempt to achieve optional goals, unlock bullets that may have been missed, beat their friends' record scores, and so on.

7.1   City Missions (General Info)

City Missions take place in a realistic *Saints Row* style urban environment. Two City Missions are planned.

Because of the characteristic nature of realistic city environments, City Missions allow us to convey the thrill of steering a bullet through a real world, but at the same time require a massive amount of content creation in order to produce a believable environment.

Additionally, the realistic nature of the city imposes various inherent constraints on level layout which prohibit us from building the most exciting gameplay interactions possible.

For these reasons and tradeoffs, the City Missions serve as the dramatic crescendo to the pace of game progression and a visual/narrative reward for the player at the mid and end points of the main game arc.

7.2   City Mission A - Above Street
Here are some notes of the development/polish of City Mission A.

Main Beats
City Mission A has nine main areas:
1. Starting Area
2. Kitchen
3. Hallway
4. Garage
5. Signs Area
6. Train Area
7. Helicopter Area
8. Office
9. Boss Room

Starting Area
- mini cinemtic showing the girl and bullet launch.
- restart should be quick, so we need to skip the cinematic upon restart.
- move starting point back to make enough room for cinematic.
- make sure all windows near the window you need to go into are not lit, for visibility and clarity.
- move the roof of the 1st building up much farther so it's obvious you can't fly up there.

Kitchen
- put the bottle back on the center of the table. **(camera cut trigger)**
- do not put breakable things right in front of walls that stop you (move or change the jugs in the kitchen so it doesn't look like there are breakables right in front of the walls.
- we could make it look like they are cooking meth in the kitchen.

Hallway
- make the 'go away' doormat much more noticeable.
- clarify the breakability of the water jugs. Either make them breakable or turn them into something that is obviously not breakable.
- need to discuss the extinguisher later, if it is valid for a breakable, if it should trigger a camera cut.

Garage
- approach to lower floor: the opposite side of the decline is very awkward, we should turn that into a flat wall so it's obvious you need to go around it.
- maybe add more guys at end of garage.
- make the pipes on the ceilings contrast much better.

Signs Area
- place pigeons on the cables.
- need to address what to do with the street level portion from this point until the end.
- maybe make the street level section here into the prologue mission, so we get to re-use content and at the same time have a populated area for this mission.

Train Area

- add a few things above the train area so it's not so boring and empty (just a few suspended or flying things will do).
- train platform is a good spot for a gag or two.

Helicopter Area
- place helipad at bottom to compliment helicopter.
- good place to have a sequence of 3-4 flying pigeons - this would make an optional goal of hitting all the pigeons so they have to be spaced nicely enough so the player could get them all with effort.
- maybe can add other flying objects, IF necessary.

Office
- lamp at beginning should be destructible.
- add water cooler with destructible water jug.
- make hall narrower.
- place objects along hallway in alternating order to create a zigzag path for player
- maybe add small maze of cubicles.
- people holding coffee pot or other destructibles. portable phone?
- add copy room before boss room to make it not a straight shot. player has to go through a closed door's window to get through.
- maybe copy girl is copying her butt on the copier.

Boss Room
- fancy double doors to boss room, not single.
- double doors are opened mid-way to make way for a cake on a cart.
- can go through the cake, or hit an ornament on the top for a optional goal.

7.3   City Mission B - Street Level
Main beats for the street level city mission and possible camera gag cuts:

1. Narrow Alley
- starting point
- bum in alley smoking crack or giant bong **(gag #1, trigger: break bong)**
- other things in alley
- maybe foreshadow sportbike target by depicting him here going away in some vauge direction before level start

2. Wedge Building
splits traversable route into 2.

2a. Moving Van on left side
- piano being lifted/lowered **(gag #2, trigger: break thick rope holding piano)**
- guys moving giant piece of glass perpendicular to your path

2b. Stripper Car accident on right side
- a car accident involving onlookers of a car full of strippers.

3. El Train Pillars/ UPS Truck
- just a lot of unique pillar work to fly through
- you don't actually see an el train here
- you can fly through the truck and its cargo for points (longitudinally facing away from you, open back)
- box stacks in places with hole(s) you can fly through
- pimps and hoes located here

4. Wide Street Area
- 4 lane section
- gas tanker
- interesting traffic patterns

5. Hole In Wall to Storefront
- you approach a storefront with a giant hole punched through
- news van with reporter and crazy person right before the wall
- fly into giant hole and discover you're in a storefront and a car has smashed itself all the way through
- police and ambulances on the other side
- guy trying to save antique vase somewhere in store **(gag #3, trigger: break vase)**

6. Traffic
- 2 lane width, windy road and elevation variation.
- maybe subway entrance/exit here as short alternate path
- needs to be uniquely different from the wide street area
- maybe short tunnel if needed for variety and if not used in the wide street area.
- cop shootout **(gag #4, trigger: strike cop's firearm)**

- spot sportbike appear and toward tunnel

7. Sportbike Target Tunnel
- city tunnel with a building on top, no where else to go but inside tunnel
- catch up with sportbike target, if you pass him you enter 'out of bounds' and mission over.
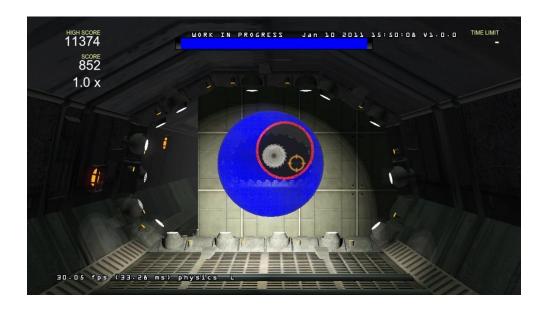

7.4   Sniper Range Missions

Sniper Range Missions take place inside the secret and mysterious Ultor Labs sniper range. Eight Sniper Range Missions are planned.

Because the sniper range is fully contained within this secret facility, and because the range has been devised for the sole purpose of developing this secret controllable bullet technology, this narrative conceit allows us freedom to build any manner and sequence of interesting obstacle devices that do not suffer from the natural constraints of real-world urban objects.

Further, the modular and non real-world nature of the sniper range allows us to quickly build levels and generate a much greater volume of content that is not possible when working with a realistic city environment.

For these reasons and tradeoffs, the Sniper Range Missions serve as the greater volume of the game where exciting and creative gameplay obstacles challenge the player in myriad ways that are not possible in a city environment.

7.3   Mission Tables (Progression, Main Targets, Optional Goals, Themes)
- player earns progressively faster and/or more maneuverable bullets as they progress.
- this means earlier levels can be spaced <u>a little</u> more tightly than later ones
- some obstacle combinations in levels should be easier to snake through with slow bullets, and optional obstacles/routes may be very difficult or even not possible with fast or poor handling bullets. However, every level should be possible to complete with every bullet (you just don't have to be able to take any route with any bullet)

Mission Progression, Type, Title and Main Target Table
(this is always subject to change)
("accuracy reward" means the player earns more points for hitting a more critical area of the target)

Mission Dev Name	Progression Position	Mission Type	In-Game Name	Target
	0	City	Prologue	**Anna** (med-large target w/accuracy reward,

Mission Dev Name	#	Type	Target
			still)
Inf_Tunnel_C	1	Range	**VR Super Large Vase** (large target, still)
Inf_Tunnel_D	2	Range/Timed (MAYBE)	**Bulls Eye Target** (large w/accuracy reward, still)
Inf_Tunnel_A	3	Range	**VR balloon, slightly swaying** (med. target, mostly still)
	4	Range/Timed	**VR Dex walking** (med. target w/accuracy reward, simple motion)
Inf_Level_A	5	City	**Dex** (med-small target w/accuracy reward, sitting behind desk)
Inf_Tunnel_B	6	Range/Timed	**VR Rope of Onions** (small target, still)
	7	Range	**VR Raccoon walking** (small target, simple slow motion)
	8	Range/Timed	**VR Pigeon in flight** (small target, simple faster motion)
	9	Range	**VR version of biker** (small target w/accuracy reward, complex motion)
Inf_Level_B	10	City/Timed	**"Biker"** (small target w/accuracy reward, complex motion)

Mission Optional Goal Table

Each mission has up to 5 optional goals, ones where more than 5 are listed will eventually get cut down to 5. For each optional goal that specifies a number or "n," assume each of these numbers are subject to frequent change. For each goal that specifies gaining some quantity of something, it is assumed that the goal really means gain "at least" that amount. Additional bullets get unlocked when the player satisfies all the optional goals for a given mission.

Mission Dev Name	Optional Goals
Inf_Level_A	❑ Collect n pickups in one shot. ❑ Extinguish the candle flame (fly near/over it). ❑ Smash n windows in one shot. ❑ Fly through the train. ❑ Fly through the Donut sign. ❑ Headshot the main target.
Inf_Level_B	❑ Complete mission with at least n sec. remaining. (assuming its a timed mission) ❑ Hit all n pigeons in one shot. ❑ Headshot the portrait. ❑ Fly through the puke. (of puking wino)

	❑ Fly through the ambulance. ❑ Headshot the main target.
Inf_Tunnel_A	❑ Earn n Near-Misses. ❑ Spend 10 contiguous seconds at Max Speed. ❑ Earn 50,000 points.
Inf_Tunnel_B	❑ Complete mission while flying only at Max Speed. ❑ Earn n points. ❑ Complete mission with at least n. sec. remaining. (assuming timed mission)
Inf_Tunnel_C	❑ Complete mission without flying at Min speed. (assuming this is 1st mission where slow down is avail.) ❑ Earn n points.
Inf_Tunnel_D	❑ Collect n pickups in one shot. ❑ Earn n points. ❑ Hit the bulls-eye. (assuming bulls-eye target is main target)
*general palette	❑ Collect all the Influence pickups in one shot. ❑ Collect all the Score pickups in one shot. ❑ Collect all the Time pickups in one shot. ❑ Complete mission without collecting any pickups. ❑ Collect every pickup in one shot. ❑ Collect n pickups in one shot. ❑ Earn n points. ❑ Complete mission without flying at Min speed. ❑ Complete mission while flying only at Max speed. ❑ Spend n contiguous seconds at Max Speed. ❑ Complete mission with at least n. sec. remaining. ❑ Fly though the xxxxx (some landmark item/situation). ❑ Hit xxxxx region of the main target. ❑ Hit n <breakable objects> in one shot. ❑ Hit all <breakable objects of type xxxxx> in one shot. ❑ Get n Near-Misses. ❑ Get the multiplier to reach n x.

HUD Display Needs for Optional Goals

There are basically two types of optional goals: "Single-Action" and "Multiple-Action." Single-Action goals are completed by the trigger of just one event, like "Fly under the bus". Multiple-Action goals are completed by the repetition of a single type of event multiple times, for example, "Collect 5 pickups in a single attempt." For most Multiple-Action goals, this exact number will be subject to frequent change as we tune levels.

The way HUD display popup strings appear in this context is as follows. The strings joined below with "+" should appear on one line, concatenated. Order of concatenation may change.

Action	HUD Display Popup Text

Complete a Single-Action Optional Goal	String B: "Goal Completed!"
Complete the first part of a Multiple-Action Optional Goal	String A + multiple action count display at 1 out of n times: "Optional Goal" + "1/n"
Complete the second part of a Multiple-Action Optional Goal	String A + multiple action count display incremented: "Optional Goal" + "2/n"
Complete the final part of a Multipli-Action Optional Goal	String B + multiple action count display incremented: "Goal Completed!" + "n/n"

Mission 0 - Assassination-1 (Prologue City Mission)
>Small subset city mission to acclimate the player to the game
>- start with Bullet A: (or maybe special bullet for 1st level only until you progress past)
>>- stable bullet, most basic and easiest to control
>>- no influence or speed up or slow down
>- Unlock Bullet B for hitting main target.
>- Unlock Mission 1 for hitting main target.
>*** maybe, for first time playing, you get to use a special bullet that gets re-locked when you complete this first prologue mission. (so player doesn't get a boring bullet right off)

Mission 1 - SniperRange-1
>Theme: Easiest/Most Basic Mission
>introduce basics of control, left/right/up/down
>no moving obstacles
>introduce points-only pickups
>large easy nonmoving target at the end
>- only can play Bullet B in this mission until you complete it:
>>- also stable and easy to control
>>- can do slowdown only, and slowly earns influence at normal speed.
>>- no speedup function on this bullet
>- Unlock Bullet C for hitting main target.
>- Unlock Mission 2 for hitting main target.

Mission 2 - SniperRange-2 (TIMED)

Theme: "Moving Panels"
- introduce timed mission and timer pickups
- clear opportunities to use speed-up and to test player on speed-up function
- one optional goal is a minimum multiplier threshold
- any bullet you have is allowed from now on, by now you have Bullets A~C.
- Bullet C properties:
- relatively slow turning
- slightly less stable
- both speedup and slowdown available
- Unlock Bullet D for getting all optional goals
- Unlock Mission 3 for hitting main target.

Mission 3 - SniperRange-3
Theme: "Small Holes"
- introduce influence pickups
- target is a very small object
- Bullet D properties:
- maneuverable but unstable (oversteer)
- slowdown/speedup are both slight
- influence use/accumulation is also slight
- Unlock Bullet E for getting all optional goals
- Unlock Mission 4 for hitting main target.

Mission 4 - SniperRange-4 (TIMED)
Theme: "Hard and Easy Routes" (multiple path choices risk/reward)
- target is a small object that also moves
- Unlock Bullet F for getting all optional goals
- Unlock Mission 5 for hitting main target

Mission 5 - Assassination-2 (FIRST ACTUAL CITY MISSION)
- TBD

Mission 6 - SniperRange-5
Theme: "Open Room"
- lots of open space, mostly point pickups
- things that are barriers are disconnected obstacles, possibly moving

Mission 7 - SniperRange-6 (TIMED)
Theme: "Narrow Corridors"
- lots of narrow tunnel spaces

Mission 8 - SniperRange-7
Theme: "Near-Miss City"
- this level should be built around creating an excess of Near-Miss opportunities.
- dense patterns of objects/obstacles in succession with some offsets from each other.

Mission 9 - SniperRange-8 (TIMED)
Theme: "Open / Narrow Combos"

Mission 10 - Assassination-3 (SECOND ACTUAL CITY MISSION)
- TBD

Types of mechanial situations in the game:
- moving barriers
- large targets
- small targets

- moving targets
- large gaps
-small gaps
- moving gaps
- rotating obstacles
- back/forth movement
- wide tunnel
- narrow tunnel
- rings (pickups) -- moving pickups???

Types of gap shapes
- slots
- circular gaps
- rotating gaps
- translating gaps (gap moves from left to right or follows a path).
- opening or closing gaps
- transforming gaps?

8   Achievements, Trophies

Achievements

Achievements (360) or Trophies (PS3) can be unlocked by performing various feats while playing missions. The list of PSN trophies and XBLA achievements will match each other.
Microsoft Rules as of 10/14/10 are as follows (need confirmation):
1. A retail game must launch with between 5 and 50 achievements for a total score of 1000 points. DLC addons of up to 30 achievements and 750 points are allowed.
2. An arcade game must launch with 12 achievements for 200 points. DLC addons of up to 9 achievements and 150 points are allowed

The 12 achievements and their respective point breakdown for SR:Killshot are as follows:
1. 60 pts - The Cleaner (All Missions completed with highest rank)
2. 20 pts - Snuffed Out (All Missions Completed)
3. 20 pts - TBD
4. 20 pts - TBD
5. 20 pts - TBD
6. 10 pts - Hot Shot (Mission Completed without using any Influence)
7. 10 pts - Money Shot (First Target Taken Out)
8. 10 pts - TBD
9. 10 pts - TBD
10. 10 pts - TBD
11. 10 pts - TBD
12. 05 pts - TBD

Trophies

PSN games allow for 315 points worth of trophies at the following scale (need confirmation):

Bronze = 15 points

Silver = 30 points
Gold = 90 points

The Trophies and their respective points values for Killshot are as follows:
1. Gold   (90) - The Cleaner (All Missions completed with highest rank)
2. Silver   (30) - Snuffed Out (All Missions Completed)
3. Silver   (30) - TBD
4. Silver   (30) - TBD
5. Silver   (30) - TBD
6. Bronze (15) - Hot Shot (Mission Completed without using any Influence)
7. Bronze (15) - Money Shot (First Target Taken Out)
8. Bronze (15) - TBD
9. Bronze (15) - TBD
10. Bronze (15) - TBD
11. Bronze (15) - TBD
12. Bronze (15) - TBD

9   User Interface

The following sections describe all menus and interface screens planned for the game.

9.1   Menu Interface

The following are the planned menu screens for the game.

Title Screen

Main Menu
Select the various game modes.

Mission Select Screen
Select and view the various missions available.

Bullet Select Screen
Select which bullet to use for the upcoming mission.

Mission Loading Screen
View the data for the upcoming mission.

Mission Result Screen

Pause Screen

Options Screen
⊕   Vertical Control Axis (Normal/ Inverted)
⊕   SFX Volume (0-10)

⊕   Music Volume (0-10)

Statistics Screen
View all kind of tracked statistics about your play history.
⊕   % game complete
⊕   items broken
⊕   near misses
⊕   gameplay time
⊕   total cumulative points
⊕   highest multiplier achieved
⊕   highest rank echieved
⊕   bottles broken
⊕   pigeons popped
⊕   distance traveled

9.2   HUD

The following are the planned elements of HUD information that will appear in the game.

⊕   Player Score
⊕   High Score
⊕   Time Limit (if in effect)
⊕   Score Multiplier
⊕   Influence Meter
⊕   Near-Miss Effect (not always on)
⊕   Point Score Effect (not always on)

10   Audio

Art Direction
- **Effects**
  - In-game sound effects should follow the Saint's Row franchise's lead and reuse from the games when possible.
- **Environmental**
  - In-game environmental effects should follow the Saint's Row franchise's lead and reuse from the games when possible.
- **Metagame**
  - UI sound effects should follow the Saint's Row franchise's lead and reuse from the games when possible.
- **Music**
  - Music should follow the Saint's Row franchise's lead. Heavily Hip-Hop influenced. Please see the Music Plan document for specific details.

**Outstanding Issues: Time-Scaling

Sound Categories

UI
- Basic Navigation
  - Select
  - Highlight
  - Back
  - Exit
  - etc
- Mission End
  - Fail
  - Succeed
  - Achievements earned

HUD
- Targeting Reticule Toggle
- Speeding up and slowing down the world
  - At slowest speed maybe some kind of time warp/heartbeat sfx
  - At fastest speed something to enhance pace (swooshing?)
- Running low on Influence resource
- Running out of Influence resource
- Decrementing Bullet health
- Points awarded
- Multiplier
- ~~Chaining Points Combo~~
- Achievements earned

Tutorial
- VO for walk though
- Pop-ups

Mission Set-Up
- ~~Image Montage (images shown to the user in brief intervals before the mission so they get the lay of the land)~~
- Muzzle Fire (initial fire of the bullet)

Bullet Hitting

- Glass (windows)
- Wood (skateboard/pimp cane
- Dinnerware (plates and cuups
- Tin/Light Metal (Coin, spray paint can)
- Plastic (cups, cooler
- Birds (Pigeons)
- Food (Burgers, ketchup bottle, egg roll, etc...)
- Paper (Roll of Dollar Bills)
- Near Miss sounds (swooshes)

Mission Specific

- TBD

Bullet Types

- ~~Two Stage (a two part bullet - much like a space shuttle)~~
- ~~Incendiary (combusts on collision creating a fireball~~
- ~~Shrapnel (on command or collision creates a small explosion sending fragments of shrapnel flying)~~

Payoff (TBD based on art concept)

- ~~Heart Shot~~
- ~~Head Shot~~
- ~~Nut Shot~~

Story

· TBD

rough list of audio:

- some BGMs, not sure if we want to have BGM playing during gameplay, need to discuss that with Scott. If no, then probably about 5 tracks. If yes, then a lot more.
- breakdown of the about 5 tracks mentioned above:
  o 1 BGM for replay/highlight montage.
  o 1 BGM for mission results. could be short.
  o 1-2 BGMs for main menu screens.
  o possibly short intro fanfare/BGM for each mission start/intro animation.
  o possibly a separate BGM for mission loading/dossier, could be short.
- bullet speed up/slow down SE. custom set for each bullet type (we have about 10-30 bullets). MAYBE ambient flight sound at fast/slow speeds.
- ambient SE, lots of custom ones for the city levels, but we basically just need one set of SE to encompass all the sniper range levels.
- basic palette of UI SE. (about ~5 SE)
- various point awarding and event feedback SE. ('m guessing about ~20 SE)

11 Trial Version

TBD

We are required by first party to provide a trial version of the product. Current though is to allow the player to play the first set of challenges and enter the first city. The game would exit shortly after the bullet started to travel through the first city environment.

12   Save File Data and Tracked Stats

This section describes all the data that is tracked in the game's save file, and explains all possible systems & examples within each system.

All stats that are tracked are on a per-xbox/PS3 user basis, so there is one set of the below per save file.

"Statistics"
These are records that appear on the Statistics screen, they are generally numerical stats that apply globally across the entire game.

"Option Settings"
All settings under options, they should be saved anytime the player changes these and leaves the screen, and also loaded at the beginning. Some or all of these parameters should also appear in the pause menu.

"Leaderboard Data"
The game should save your performance data for the leaderboards.

"Unlockable State Data"
The following items each have a locked or unlocked state the game needs to remember:
- each level (locked or unlocked)
- each bullet (locked or unlocked)

"Level Status Data"
Each level also has a set of data that needs to be tracked.

"Bullet Stats"
These are specific use stats that are tracked on a per-bullet basis.

"Achievements" and "Trophies"
These are the specific 360 Achievements and PS3 Trophies, there will be 12, and they will be defined at a later date. These will likely be about overall game progress and global use and some miscellaneous things. They will likely not be mission-specific goals like "fly through the girl's flower on level 6," because those are encapsulated by the "Optional Goals" which are different for each mission.

Other Save File Data
- the game should remember and retain the last camera view used.
- the game should remember the last cursor position on each screen except for the pause screen and possibly a few more specific exceptions, and it should put the cursor there every time you return to that screen, even within the current game session.

example 1: player selects "options" from the main menu screen, then backs out to the Main Menu. When the player returns to the Main Menu, the cursor should be sitting on the "options" selection, not the first selection in the list.

example 2: the last time the player was at the Mission Select screen, he selected level 3, played and completed the level, then returned to Mission Select after the Mission Results screen. When the player returns to the Mission Select screen, that same mission should be already highlighted, instead of the first mission. Assuming there was a "save file write" at the Mission Results screen, if the player turned off the machine after that, then turned it back on, when arriving at the Mission Select screen again, the first mission highlighted should be level 3, because that's the mission that he last played. Same goes for bullet selection (just remember the last bullet used period, not the last bullet per a given level).

12.1 Tracked Stats List

Here is the official list of tracked stats. Each sublist here corresponds to one of the categories described above:

"Statistics"

SR3 unlock #1	bool	
SR3 unlock #2	bool	
Items Broken	int	
L1 Near Misses	int	
L2 Near Misses	int	
L3 Near Misses	int	
Bullets Fired	int	(also appears as a leaderboard column)
Mission Targets Hit	int	
Mission Targets Missed	int	(mission targets hit + missed = bullets fired)
Total Points Earned	int	(there is a leaderboards board for this too)
Best Rating	enum	
Overall Game Completed	displayed as int % (e.g. 25%)	
Optional Goals Completed	int / int (e.g. 3 / 8)	
Gags Found	int / int (e.g. 3 / 8)	
Highest Multiplier	real to tenths (e.g. 14.6)	
Best Global Rank	int (e.g. #421)	

"Leaderboard Data"

One set of data for each level:
- gamertag

- best score for that gamertag and level
- name of bullet used when best score was obtained

One set of data for the overall score ("Total Points"):
- gamertag
- total points earned for that gamertag (the sum of that gamertag's best score for every level)
- bullets fired for that gamertag (we can also use this to check bogus scores)
Also, an "overall rank metric" that compares your total game score to all other players' total game scores

"Level Status Data"
The following is displayed for each level on the Mission Select screen:
- main target status (completed/not completed)
- optional goal status (completed/not completed) There will be between 1 and 5 optional goals per level.
- your personal best score (also used for leaderboards)
- your leaderboard rank # associated with your personal best score
- your personal best rating title (e.g. O.G. etc.)
- The top 4 or 5 best leaderboard scores among only your friends for this level, along with their rank numbers too.

"Bullet Stats"
- use % rate (# of times this bullet was fired / # of times all bullets were fired)
- # of times completed a level with this bullet (increment <u>every</u> time you hit a mission main target)
- of all the time spent flying this bullet, % of real time spent at max speed.
- of all the time spent flying this bullet, % of real time spent at min speed.
- we also have likely 5 categories of "performance" stats with a 1-10 or 1-8 rating for each. This may be just displayed visually and not explicitly tracked though (bullet performance stats do not change)

Appendix A   Scope Revisions
This section is for reference for the development team to compare the current game's scope to the original scope that was planned before December 20.

Totally Cut Features:
- No Multiplayer/ split-screen
- No Infinite Mode (James says ~3 weeks to develop)
                              - No Waypoints (can use Icon Rings instead for same purpose if needed)
- No "advanced" bullet types (that require new content to be built).
- No Currency system.
- No Special Bullet Action Button.
- No DLC.

Reduced/Revised Features:
- City Missions cut to 2.
- 8 Challenge Missions.
- Connectivity: our game unlocks something in SR3 but not the other way around.
- UI decreases in size accordingly.
- Ricochet functionality limited to current implementation (no advanced ricochet).
- Multiple tiers of accomplishment still exists for each mission, but they are not called gold etc.

Retained Features:
- Influence Meter System
- Point System: get points for finishing quickly, saving Influence, smashing through key items, near-miss bonuses, pickups, flying through specific holes.
- Near-Miss mechanic.
- Multiple Bullet Types may exist only as variations on parameters, will be unlockable.
- Variety of statistics still tracked for the player.
- Collectible pickups for replayability. (pickups will be subset of Icon Rings)
- Challenge system design that uses modular pieces.
- Asynchronous multiplayer elements (based on leader board tech).
- "Edge of World" game over effect sequence for leaving game play area.
- Camera Cuts for City Mission Money Shots.
- Breakable objects for points- breakables should just look breakable.